



## *Thursday Memo – June 5, 2014*

### **What does PPD stand for?**

Here is one of the reasons I am so grateful to be doing the work I do, and having the interactions that I get to have, whether in the US or in Liberia. (Note: I didn't have a chance to review this record before writing this up, so details may be sketchy!)

A few months ago while in Liberia, I got a call from one of our experienced lab staff. He had a friend who wanted to bring a patient by for evaluation. The patient was in her 30s, previously healthy, and had presented at several other health facilities over the last 3 to 4 months for evaluation of unexplained ascites, with a substantial increase in abdominal girth. She is college educated and holds a job as an administrator in Monrovia. She was not having a lot of pain or tenderness. She had been evaluated at several labs with all the routine tests-hepatitis B and C were negative, an abdominal ultrasound was felt to be unrevealing, HIV antibodies were negative. She was quite anxious about her situation-what could be causing her ascites? She had taken diuretics with some decrease in the ascites, but each time she stopped them, it came back worse than before.

I saw her, took her history, reviewed her lab results, and did another abdominal ultrasound to see if I could see any liver lesions or evidence of liver disease or other problems. Her review of systems was positive only for some malaise and a very occasional sense of unstable body temperature. Her vital signs were all normal. I asked about exposure to tuberculosis-she was not aware of any. We had recently brought in a bottle of PPD (Purified Protein Derivative, or tuberculin), to allow us to apply a mantoux or Tuberculin Skin Test (TST) in selected patients. The Ministry of Health and the Tuberculosis/Leprosy Control Program here do not recommend use of the TST because there is such a high background positivity rate-I have not seen data for Liberia, but in many developing countries with high rates of exposure, up to 1/3 of the population carry mycobacterium tuberculosis. But we have found it useful in selected cases at our hospital, and I offered to test her for TB. When she came back 3 days later, her TST was reactive with an 18 mm diameter. As we talked, I suggested that the chances were quite high that she had abdominal tuberculosis causing her ascites. However, we would be very unlikely to demonstrate actual bacteria on smears of spun fluid, etc. I recommended a therapeutic trial of anti-tuberculous therapy. She was quite reluctant to buy into this line of reasoning, and remained skeptical throughout our conversation, but eventually agreed to go and see our TB treatment coordinator to receive her supply of medications (a 4 drug cocktail given once daily).

Shortly after this encounter I left to go back to the US and did not have any further news. Just last week, during this current 3 week visit, I was interacting with Salome, our TB treatment coordinator, and she said "Guess what? Your friend is doing great!" and went on to tell me that

within a week her ascites had begun to resolve and that she was feeling well now, and continuing her treatment. I asked if she could tell her to look for me the next time she came in for her medicine, and just 2 days ago she stopped me on the road in front of the hospital to say "Hi". She looked very relieved and was so happy to have found the solution to her problem. I encouraged her to complete her full course of medication, and congratulated her on moving forward with her treatment.

This is purely anecdotal, and I'm unsure if there's any evidence out there on this, but I really think seeing the PPD turn positive with her own eyes ("purified protein derivative?"... or perhaps... "positive proof of disease"?) helped to convince her of the reality of TB in her body and gave her the final push to give the therapeutic trial a shot. When patients doubt their HIV test or other results, I often repeat the test in their presence so that they can see the little color stripe turn positive on the test strip. Just another aspect of the art of medicine...